

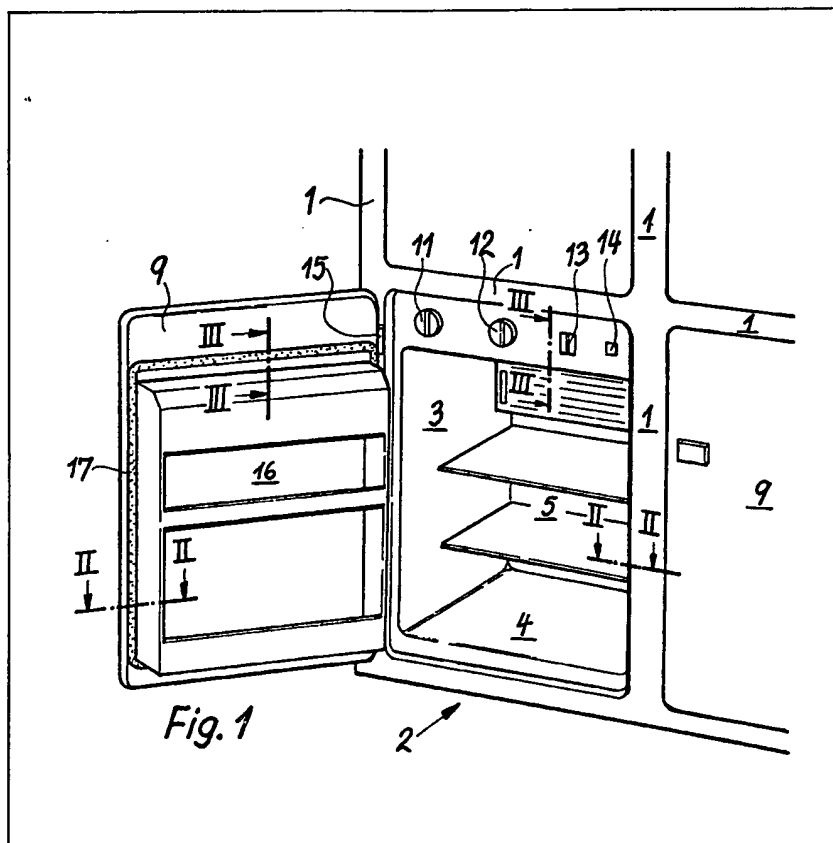
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(54) Mounting refrigerators in cabinets

(57) In an installation wherein a refrigerator is mounted in a kitchen unit, the refrigerator door, instead of being hinged to the refrigerator body, is secured to the inside surface of the cabinet door, which latter is hinged to the cabinet.

There is preferably provided on the cabinet door, a continuous closure sealing strip 18 which seals off the gap between the door 9 and the frame member 1 and serves as a second seal behind the beading 17 between the insulated chamber 2 and the front closure. (Figure 1). The installation is for use in a caravan or the like.



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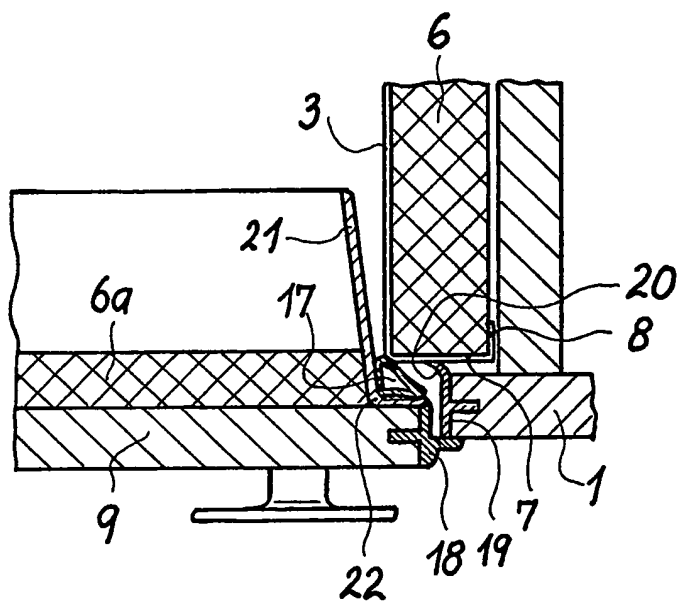
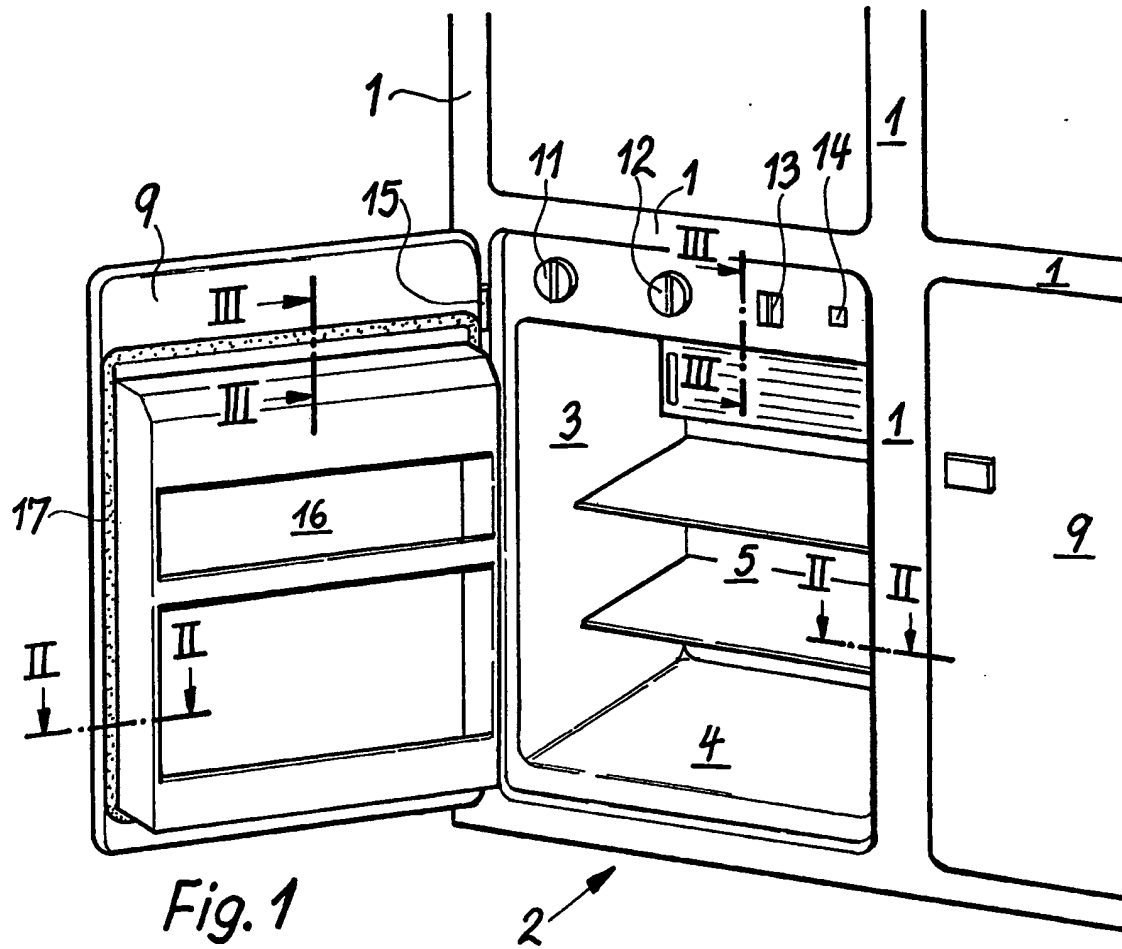


Fig. 2

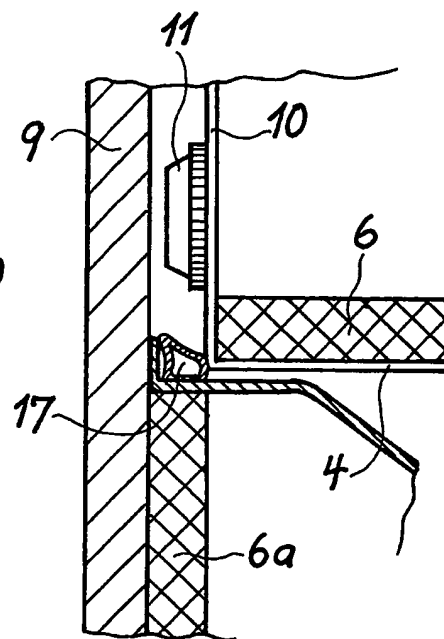


Fig. 3

SPECIFICATION

Cabinet for motor caravans or trailer caravans

5 The present invention relates to a cabinet for motor caravans or trailer caravans with built-in kitchen units and an insulated chamber with refrigerating unit built-in to said cabinet.

In motor caravans or trailer caravans, units are
 10 fitted in the kitchen area, or in other areas, which are equipped with doors, drawers, or even drop-type fronts. When fitting refrigerators, special measures have heretofore been taken to fit the complete refrigerator, complete with door, into these kitchen
 15 units. Generally, this involves the provision of a recess at the front of the unit which has to be large enough to receive the entire refrigerator as it is inserted from the front. This has required the unit to be specially designed and also specially assembled.
 20 The place to receive the refrigerator must also be predetermined; consequently there is no room for choice. In order to impart a unified appearance to the unit, it is also necessary to fit to the refrigerator a further door panel of the same construction and
 25 finish as the other doors of the unit. With units of this kind, the design of fronts of built-in kitchen units becomes limited and, in addition, more space is necessary.

In the case of refrigerators to be fitted into built-in
 30 kitchen units or other units in motor caravans and trailer caravans, there has been the further difficulty that, not only is the lock on the refrigerator different from the other locks or handles, leading to confusion in manipulating these, but in addition, such locks are
 35 frequently unsuited to the special requirements of employment in motor vehicles, so that, when sudden braking occurs, or the vehicle chassis is subjected to stress, there is a danger of the door bursting open.

40 The problem sought to be overcome by the present invention is the provision of a built-in refrigerator for motor caravans or trailer caravans, which can be fully integrated into the built-in kitchen units or other units, which can be fitted in any
 45 desired position, which is fitted with the same, specially secure locks, and which is equipped with additional sealing and securing devices for the insulated chamber.

As a solution to this problem a cabinet of the kind
 50 initially described is characterised in that the insulated front closure of the insulated chamber is affixed to the inside of the cabinet door and is fitted with insulating seals which co-operate with the front edge of the insulated chamber, and in that the
 55 cabinet door is hinged to the lateral frame member of the cabinet and is provided with a bolt lock. Between the front frame member of the cabinet and the front edge of the insulated chamber, there is preferably fitted a further sealing member. Thus,
 60 along the rebate for the cabinet door, a continuous, edge-protecting strip or profile edging strip is fitted, the inwardly extending rear edge of said edging strip co-operating with the front edge of the lateral wall of the insulated chamber in the manner of a sealing lip.

65 The cabinet door also has a continuous sealing

strip which seals off the gap between the door and the frame member and thus serves as a secondary seal behind the insulating seal between the insulated chamber and the front insulating closure. The front
 70 closure, which is affixed to the cabinet door and is surrounded by an insulating beading, preferably leaves unrestricted the area of the cabinet door which encloses the control panel. The insulating beading between the cabinet door and the insulated
 75 chamber, has preferably a bevelled outer surface and fits between two separate but interlocking angles.

Thus, in a motor caravan or trailer caravan having built-in kitchen units or other units, with a number of
 80 recesses of equal size which are closed off by doors, the present invention offers the possibility of adapting any one, or even more than one of said recesses as a refrigerator. The resulting structure remains extremely compact with the most advantageous use
 85 of space, the insulation of the refrigerator unit is excellent, and the outer appearance of the door and its locking means are the same as in all other doors, so that confusion does not arise in manipulating these, whilst the reliability of the lock is ensured
 90 even under extreme mechanical stress. The actual area to be refrigerated is limited to the actual working space. The possibility is provided of creating an economical structure for the insulated chamber and its closure member, such that the surrounding built-in framework contributes to strengthening,
 95 reinforcing and protecting it.

An embodiment of the novelty will now be described, by way of example and in more detail, with reference to the accompanying drawing, in
 100 which:-

Figure 1 is a perspective view of built-in kitchen units with integral refrigerator;

Figure 2 is a section on the line II-II of *Figure 1*; and

Figure 3 is a section on the line III-III of *Figure 1*,

105 the section lines appearing twice as they are applied with the cabinet open.

A built-in kitchen unit comprises a basic frame, of which the front frame members 1 are shown in the perspective view of *Figure 1*. Behind these lie the lateral walls and partitions and also the roofs and floors which are structural components of the various cupboard units. An insulated chamber 2 is inserted into this type of recess, the lateral walls 3, roof and floor 4, and rear wall 5 being produced in
 110 one piece from a sheet of material, preferably plastics material, which has a hard, hygienically suitable inner surface and an entire outer surface clad in insulating material 6. The front edge of the insulated chamber 2 is at all points flanged over the insulating layer 6, thus providing reinforcement,
 115 mechanical protection and screening. The front edge 7 has also an angled portion 8 which supports and secures the insulation 6 from the outside. The outer edge of the roof 4 is flanged upwards to form a control panel 10 on which the various controls and switches are mounted, such as on-off switch 11,
 120 regulator switch 12, control switch 13 and warning light 14. The control panel 10 lies in the same plane as the front edge 7 of the insulated chamber.

130 The doors 9 are secured to the outer frame 1 by

hinges 15. The closure 16 of the insulated chamber is affixed to the inside of the door 9, shown open in Figure 1, and has, around its periphery, a beading with bevelled outer surface which provides the actual seal for the refrigeration chamber. The front closure 16 of the insulated chamber is fitted in the normal manner with attachments and recesses to accommodate bottles, butter, eggs, etc.

The beading 17 is fitted so that, when the cabinet door 9 is closed, it co-operates with the front edge 7 of the insulated chamber, and in particular, also with the upper front edge located beneath the control panel 10, so that the area between the door 9 and the control panel 10 is not subjected to cooling, so that it does not require to be insulated. Between the front closure 16 of the insulated chamber and the door panel 9 to which it is affixed, a layer of insulating material 6a is, of course, also provided.

The outer edges of the door 9 are in the normal manner provided with a closure sealing strip 18 which acts mainly as buffer for contact between the door and the frame member 1 but also prevents the door creaking or rattling when the vehicle is in motion. The seal 18 is, however, so constructed as to ensure even contact between the door and the frame member 1, which provides additional insulation for the insulated chamber. There is also provided on the inner edge of the frame member 1 an edge-protecting strip or profile edging strip 19. The inner edge of the profile strip 19 is extended to form a sealing lip 20 which fits snugly against the front edge 7 of the insulated chamber 2, thus providing not only additional insulation of the chamber from the surrounding space within the unit, but also a mechanical support which largely prevents and cushions any movement of the insulated chamber relative to the unit, so that, during travel, in circumstances of sudden acceleration or torsional stress on the vehicle body, the insulated chamber remains firmly in position.

The main beading 17 between the front closure 16 on the door 9 for the insulated chamber and the front edge 7 of the insulated chamber is so constructed that it fits between two separate but interlocking angles, one being formed by the lateral wall 3 of the insulated chamber and the lateral wall 21 of the closure 16 which projects into the insulated chamber when the door is closed, whilst the second angle is formed by said lateral wall 21, its continuation 22 as flange fitted to the door panel 9, and the right-angled front edge 7 of the insulated chamber.

This arrangement of the beading 17 at this location ensures that the seal thus obtained remains at all times fully effective, irrespective of construction faults or even displacements.

CLAIMS

1. A cabinet for motor caravans or trailer caravans with built-in kitchen units and with an insulated chamber with refrigerating unit built-in to said cabinet, the insulated front closure of the insulated chamber being affixed to the inside of the cabinet door and being equipped with beadings which co-operate with the front edge of the insulated

chamber and the cabinet door being hinged to the frame member of the cabinet and being provided with a bolt lock.

2. A cabinet in accordance with Claim 1, in which a sealing lip is fitted between the frame member of the cabinet and the front edge of the insulated chamber.

3. A cabinet in accordance with Claim 1, in which, at the point of contact between the cabinet door and the frame member, a continuous edge-protecting strip or profile edging strip is so constructed that its inwardly extended rear edge is in the form of a sealing lip co-operating with the front edge of the insulated chamber.

4. A cabinet in accordance with Claim 1, in which there is provided on the cabinet door a continuous closure sealing strip which seals off the gap between the door and the frame member and serves as a second seal behind the beading between the insulated chamber and the front closure.

5. A cabinet in accordance with Claim 1, in which the insulated front closure, which is attached to the cabinet door and is surrounded by the beading, leaves unrestricted the area of the cabinet door which encloses the control panel.

6. A cabinet in accordance with Claim 1, in which the beading has a bevelled outer surface and fits between two separate but interlocking angles.

7. A cabinet for motor caravans or trailer caravans with built-in kitchen units and with an insulated chamber with refrigerating unit built-in to said cabinet, substantially as hereinbefore described with reference to the accompanying drawing.

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